

Waste Management Emissions Control

How Powerday are working with EMSOL to lead the way in waste management emissions control

At a glance

In a UK first, Powerday are using leading edge, innovative technology to proactively reduce air and noise pollution at one of their waste management facilities on Weir Road, London.

Why emissions control is important.

Air pollution is the biggest environmental threat to health in the UK:



36,000

deaths a year in the UK attributed to poor air quality



1 IN 4

homes in the UK is surrounded by poor air (exceeding the WHO limits)



A THIRD

of deaths from strokes, lung cancer & chronic respiratory disease are caused by air pollution

CHALLENGES

Powerday were already trying to proactively control their pollution output, with measures such as a high powered jet wash system to dampen road surfaces (reducing dust spread) but they needed help identifying other root causes of pollution at the site in real time and EMSOL's technology was installed to do exactly that.

SOLUTIONS

EMSOL combines air quality monitoring networks in conjunction with real-time camera technology to deliver reliable, third-party integrated gaseous, noise and particulate matter management, identifying root causes of pollution and producing credible scientific data. EMSOL's data proves to all concerned stakeholders that emissions are being controlled below recommended safety limits.



Pollution Root Cause Analysis



Real-time pollution alerts



Credible 3rd party data

BENEFITS

1

All your pollution information on our dashboard – Save investigation time and money by knowing what you need to action to reduce pollution on your site.

2

Adjustable pollution alert levels, reported in real-time – so you can 'get ahead' of any rising pollution problem before it exceeds safety levels and remain compliant.

3

24 hour scientific data – to evidence mitigations made and prove pollution reductions to customers, communities and stakeholders.

DRIVING CHANGE



Change is so often driven to save an organisation money, to facilitate legal requirements or for some other direct benefit. Very few organisations exist where the reason to drive change is to reduce the impact on the environment or communities they work in, but one such organisation leading the way is Powerday.

Partnering with Merton Council in an initiative to improve air and noise quality in the Weir Road area of London, Powerday have been using innovative air and noise pollution management technology from EMSOL at their site. The motivation for adopting such technology? Simply to ensure the impact of their operations is minimal on the environment and the surrounding community.

“BY HAVING THE EMSOL AIR AND NOISE QUALITY MEASURING EQUIPMENT INSTALLED AT SITE, IT HAS ALLOWED US TO FOCUS ON SOME OPERATIONAL IMPROVEMENTS WHICH MINIMISES ANY IMPACT OUR RECYCLING OPERATIONS HAS ON THE LOCAL ENVIRONMENT.”

Chris Batterbee, Environmental Compliance Manager, Powerday

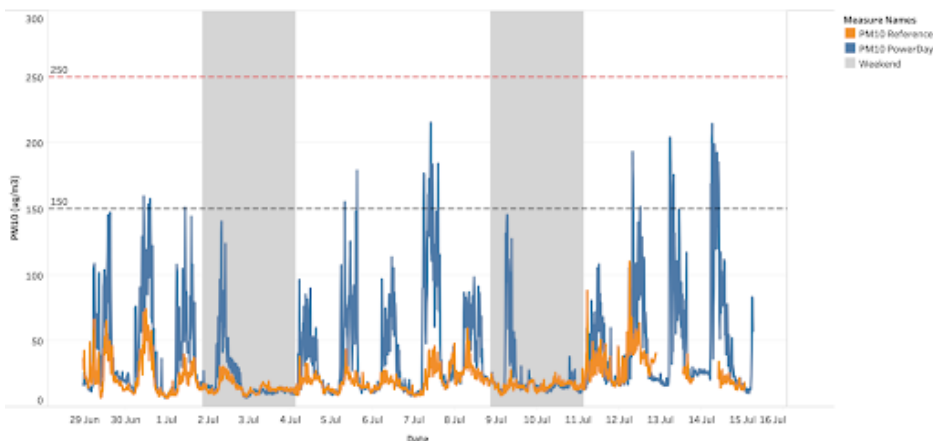


REDUCING IMPACT



EMSOL's pollution root cause analysis and real time alert notifications have allowed Powerday to proactively take mitigating measures to reduce their pollution impact. EMSOL recorded emissions levels in real time, but analysis of the 15 minute average peaks of PM10 by EMSOL's data scientist showed whilst the PM10 alert threshold of 250ug/m³ was not activated, the 150ug/m³ forewarning limit set by Merton Council was regularly observed throughout the day.'

EMSOL identified the root cause of this pollution to Powerday, along with recommendations that a sprinkler system would aid reduction of these pollution events. Powerday took immediate action, installing a water sprinkler bar at the entrance to their recycling shed.



PM10 Spikes – Comparison with Reference Sensor (PowerDay) – 15 min average PM10

Pollution spikes were identified and mitigating action taken.

Working smarter not harder

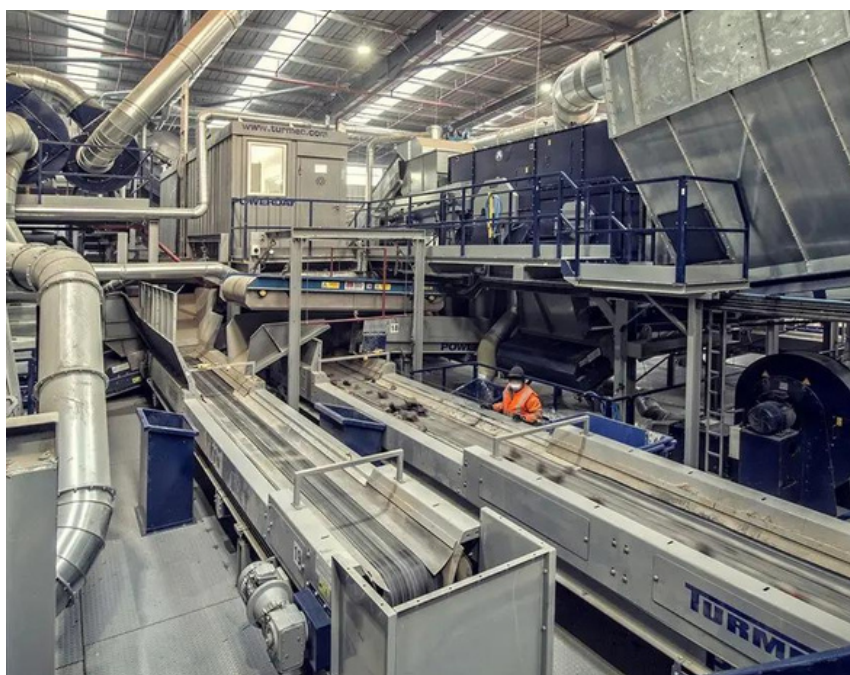
“POWERDAY HAVE BEEN EXCELLENT INNOVATION PARTNERS. THE TEAM WERE PROACTIVE AND COMMITTED TO REDUCING POLLUTION AT THEIR WEIR ROAD SITE. A NEW USE CASE FOR EMSOL, THIS DEPLOYMENT HAS PROVEN OUR TECHNOLOGY IN WASTE MANAGEMENT.”

Damian Willingale, Head of Operations, EMSOL

Powerday are committed to ensuring noise pollution is controlled at their site and are working with EMSOL to ensure levels are acceptable. Noise pollution peaks were recorded on the site and reported to Powerday by EMSOL. An on site employee was able to verify that these peaks were a result of the loading and unloading of containers. Whilst there is some unavoidable noise associated with this necessary process, Powerday are reducing their impact on local communities by only operating during the hours of Monday – Friday 6am – 4pm and Saturday 6am–1pm.

INNOVATION & SMARTER CITIES

Powerday are leading the way for smarter cities and showing us all how innovation can be used to ensure essential city servicing activity can be responsibly managed to avoid impact on our environment, health and wellbeing. Quite often overlooked in environmental discussions is the impact of noise pollution.



By using the EMSOL solution to identify the specific vehicles responsible, Powerday are enforcing anti-idling of vehicles at the site and engaging drivers in the pollution reduction approach.

Going that bit further...



BEHAVIOURAL CHANGE



As more evidence becomes available as to the extent of the health and environmental impacts of air pollution, organisations need to be driving behavioural change to ensure the way we operate is in line with reducing and controlling those impacts. Powerday are using EMSOL's data and insights to not only control pollution but also to reduce it by driving operational and behavioural change.

EMSOL recorded and reported on peaks of NO₂ in the morning at the Powerday Weir Road site. EMSOL compared these levels with their reference sensor station which confirmed that the peaks in pollution were due to site activity. Powerday personnel identified that drivers were turning engines on in the morning and warming them up/leaving them idling. Powerday took action to educate the drivers on the impact of these actions, driving the change to operate differently to ensure a reduction of impact of their operations.

ALWAYS GOING THAT BIT FURTHER, POWERDAY ALSO USED EMSOL'S DATA TO IDENTIFY WHAT REDUCTIONS COULD BE MADE BY MODERNISING THEIR VEHICLES AND A FLEET-WIDE UPGRADE TO EURO VI STANDARDS IS NOW IN PROGRESS.



Powerday are going beyond what they 'need' to do, using EMSOL's innovative technology to ensure site pollution levels at Weir Road have been controlled and reduced whilst ensuring continued monitoring delivers continuous improvement.



www.powerday.co.uk
info@powerday.co.uk
0208 960 4646

Manage Waste

Manage Emissions



www.emsol.io
sales@emsol.io
0203 982 9440